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## REVIEW

# Enhancing disabilities: transhumanism under the veil of inclusion?

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### Abstract

Technological developments for disabled athletes may facilitate their competition in standard elite sports. They raise intriguing philosophical questions that challenge dominant notions of body and normality. The case of ‘bladerunner’ Oscar Pistorius in particular is used to illustrate and defend ‘transhumanist’ ideologies that promote the use of technology to extend human capabilities. Some argue that new technologies will undermine the sharp contrast between the athlete as a cultural hero and icon and the disabled person that needs extra attention or care; the one exemplary of the peak of normality, human functioning at its best, the other representing a way of coping with the opposite.

Do current ways of classification do justice to the performances of disabled athletes? The case of Oscar Pistorius will be used to further illustrate the complexities of these questions, in particular when related to notions of normality and extraordinary performances. Pistorius’ desire to become part of ‘normal’ elite sport may be interpreted as an expression of a right to ‘inclusion’ or ‘integration’, but at the same time it reproduces new inequalities and asymmetries between performances of able and dis-abled athletes: we propose that if one accepts that Pistorius should compete in the ‘regular’ Olympic Games, this would paradoxically underline the differences between able and disabled and it would reproduce the current order and hierarchy between able and disabled bodies.

**Keywords:** *Disability sports, ethics, classification, enhancement, transhumanism, prostheses, Oscar Pistorius*

### Introduction

There is a growing academic interest in issues that relate to sports, disability and classification [1–3]. Academics from a variety of disciplines deal with questions like: ‘Can we objectively classify human beings in sport?’, ‘Should health and disability be defined in objective or contextual terms?’ [4,5]. ‘How does the ideology of normalcy relate to elite sport?’ [6]. These questions arise from a broader philosophical debate on ‘performativity’, the theoretical notion that disability is ‘performed’ instead of a static fact of the body [7,8]. They are nourished by a more general debate on disability and theories of social justice [9,10]. The case of South African sprinter Oscar Pistorius, also known as ‘the fastest man on no legs’, has particularly stimulated the academic interest from a variety of disciplines [11–18].

Pistorius is an outstanding athlete, who had the desire to compete at the Olympic Games. Running with carbon-fibre legs he is world record holder in the 100, 200 and 400 m and can even compete with elite athletes on ‘natural legs’. His desire to participate in a regular competition is surrounded by controversy and raises a variety of both empirical and (sport) philosophical questions dealing with the concepts of dis-ability, super-ability, enhancement and a fair competition. It is clear that Pistorius challenges our understanding of disability and that his case contributes to the blurring of some traditional boundaries. New technological artefacts such as innovative prostheses apparently help to turn ‘disabled’ people into ‘normal’ subjects.

What may be considered ‘normalisation’ in the context of daily life is at least ambivalent in the context of elite sport. Running on prostheses may be defined as an intrinsic aspect of the talent that is

tested in a competition against 'relevant others': athletes who have the ability to show a similar talent. Pistorius is still officially classified as 'disabled', but this classification may not be relevant anymore if one abandons the criterion of species-typical functioning in favour of a contextual approach, an approach that looks at how the socio-cultural context of a certain trait is relevant for this traits definition [18].

In daily life, there is little reason to qualify people who integrate their prostheses into their 'lived bodies' as impaired. The demarcation between sport for the 'normal' and sport for the 'abnormal' rather demonstrates aspects of our understanding of what is and what should be considered a 'normal *athletic* body'. Disabled athletes are literally *constructed* as such in the context of the culturally robust demarcation between Olympic Games and Paralympic Games. As is the case with other performance enhancing methods, the Olympic competition becomes a mechanism for evaluating athletes with a 'normal biological body' [19]. If Pistorius' label as dis-abled does not relate to his body image and way of life in a non-sports context, what does this mean for the construction of a boundary between ability sports and disability sports? Are there valid arguments to exclude him from running against able bodied athletes? And how does this discussion relate to the general discussion on classification? We will attempt to answer these intriguing questions against the background of the discussion on the definitions of and demarcations between normalcy and disability and against the background of current discussions on 'transhumanism'.

### Being disabled as the norm for humanity

In the theoretical framework of the philosopher John Rawls, those who are at the same level of talent and ability, and have the same willingness to use them, should have the same prospects of success regardless of their initial place in the social system [20]. Social class, gender or any other contingency should have no influence on the liberty individuals are to enjoy in the pursuance of their goals in life. Moreover, social and economic benefits should be distributed in such a way that they can reasonably be expected to be advantageous to all those who are worst off in the first place. Rawls aimed at this *distributive justice* (thus termed by him) to compensate for the differences in fortune that affect our lives. Justice is seen as being independent of luck and favouring a more equal distribution of harms and benefits. This idea is still often taken to be the basis for how we deal with issues surrounding the social inclusion of the disabled [1–3].

People with impairments of any kind cannot partake in society (and sport) as fully as they should,

according to the principles of distributive justice. The principles of distributive justice therefore demand that we redesign the world around us to make it more accessible for everybody. This necessitates an answer to the question what obstacles can and should be taken away in order for the persons with disabilities to become part of other spheres of life. Making a public building accessible for the disabled is one but making elite sport accessible to them is another. Elite sport is, by definition, constructed around the notions of differentiation, categorisation and selection, all with the cause of showing 'virtuosity', 'supremacy' and 'super-humanness'. Our dominant understanding of elite sport cannot be brought in agreement with some type of right to become an elite athlete on the basis of a right to a context in which all starting positions are equal. This is different from the right, for example, to receive good education. If one defines normalcy as average, excellence, by definition, excludes normalcy.

Differences between performances of able and disabled athletes can not be inferred from a definition of 'the normal'. Modern elite sport celebrates abnormalities in many shapes and appearances, varying from extreme sized sumo wrestlers to extremely undersized gymnasts. In this light, it becomes difficult to justify the difference in admiration for the elite athlete and the impaired athlete with recourse only to concepts such as 'talent' or 'effort'. Some talents are more valued in a society than others, in spite of a changing terminology that sometimes even seems to suggest that being disabled is an occasional experience of each human being.

If one were to grant a disabled person's desire to become part of 'normal' elite sport by enhancing one or more aspects of his body, this may be framed as a way of 'inclusion' or 'integration'. At the same time, this reproduces new inequalities and asymmetries between performances of the able and dis-abled bodied. To enhance the traits needed to function optimally in a society, is to take that society as the proper standard against which the functioning of people is legitimately judged. Enhancement of specific traits may count as justice through social inclusion but one could also defend that a just society is one in which people are not forced to conform and are not measured by a single yardstick. In that case, the yardstick itself should not be seen as neutral: it appears to be politically biased. When one defines what counts as a handicap in a contextual rather than a descriptive fashion, the notion of disability becomes political.

In contemporary (Western) society, social arrangements are based on the aim to provide people with the same starting position in life. Abnormalities that render this starting position inferior are therefore to be compensated. In many respects, the ideal of the elite sportsman has all characteristics of abnormality

as well. However, in contrast to the physically or mentally challenged, the elite sportsman is not considered to be subject to societies' assignment to normalise people's starting positions. How 'extreme' and 'beyond normal' the elite athletes bodies and outstanding performances may be, they are still considered as cultural heroes, icons and even as examples for the average human being (even whilst some characteristics of elite athletes' bodies may pose a handicap in daily life).

Elite sport is about excellence within the boundaries of 'self-chosen' limitations; disability sports originated from limitations through fate. Elite sport symbolises the athlete as hero; it reproduces elitist ideals about the ('athletic' and 'beautiful') body, about good sportsmanship and national pride. For many people, in disability sport, the athlete is still a 'patient combating his limitations', instead of an elite athlete with specific and outstanding talents.

The case of Pistorius holds a dichotomous consequence for the debate on equality and disability rights in sport. Pistorius' not unrealistic desire to participate in the regular Olympics is illustrative of how technological progress and changes in definition blur the distinction between able and disabled, therefore contributing to the emancipation of the disabled. But his case may also contribute to an increased inequality, between those that are technologically 'enhanced' and those that are not.

Transhumanists look upon the case of Pistorius with excited interest, since Pistorius can be used as an icon for technological progress just as easily as for equality rights for the disabled. As Camporesi [12] states: 'His [Pistorius] case is a snap-shot into the future of sport. It is plausible to think that in 50 years, or maybe less, the "natural", able-bodied athletes will just appear anachronistic. As our concept of what is "natural" depends on what we are used to, and evolves with our society and culture, so does our concept of "purity" of sport, and our concept of how an Olympics athlete should look.'

Transhumanism is a movement that seeks to advance technology in such a way that it would alter the human condition to something to which the term human may no longer be applicable. It seeks to achieve this through the means of genetic engineering, artificial intelligence, robotics, nanotechnology, virtual reality, etc. [21]. The problem with transhumanism is that in its desire to improve upon mankind, it may lead to an increase in the division between the 'tech-rich' and the 'tech-poor'. Although Pistorius has no transhumanist aspirations, his case could be seen a first step towards the transhumanist dream of a post-humanity. Apparently, Pistorius' case can be brought forward in support of equality between able and disabled, but it may also amount to an inadvertent support of

transhumanism. When posited in support of transhumanism, his case may lead to an increase rather than a decrease of equality.

### The ideology of the ICF versus the logic of sports

The ambiguity of Oscar Pistorius' status as either a 'dis'-abled, 'abled', or even 'super'-abled sportsman carries along some interesting consequences for both the classification of impairments, disabilities and handicaps and the classification of disabilities sports and elite sports. The 'International Classification of Impairments, Disabilities and Handicaps' (ICIDH) has been replaced by the International Classification of Functioning, Disability and Health (ICF) at the start of this century [22]. In general, this change of terminology reflects a shift in focus from disabilities to abilities and capacities. Disability is not regarded a characteristic (that is present all the time) but a state that may be present in certain environments or results from specific interactions with other people. With this change, the concept of health changed from a bio-statistical ('objective') conception to a more contextual conception. Being disabled is no longer considered as something one is by definition ('by its nature'), but something one becomes in relation to specific environments [23]. Disabilities are socio-cultural constructions rather than natural kinds or given states of being. People can become disabled by their environment or by specific (lack of) technologies. A person with an average intellectual ability may 'become' less able in an environment consisting of highly gifted people. An elite athlete who chooses not to use performance-enhancing substances may become 'dis-abled' in a context in which the use of doping is 'normalised'.

There is still an active discussion on the value of the ICF. Critics argue that it still leads to a desire to classify individuals according to disabilities. The philosopher of health, Lennart Nordenfelt, wrote a critical article on the ICF in this journal in 2006. Nordenfelt stated that 'The will is a crucial notion in all action theory. But the will is quite absent in the theory of the ICF. [ . . . ] Ability and opportunity are not sufficient for the performance of an action . . . one must first *intend* to act or *want* to act' [24]. According to this ability-centered theory of health, the ability of health should be related to the realization of the person's *vital goals*: 'The ultimate goal should be to enable the individual and give him or her opportunities to participate in *the way and to the extent he or she wants and chooses to participate*' [25].

What about the *vital goals* of Oscar Pistorius? Although this debate on the value of the ICF focused on the goals of rehabilitation, this case illustrates the

rather subject-oriented position of Nordenfelt. As has been put forward by Reinhardt et al. [26] in their response to Nordenfelt, the will of an individual, how he or she wants and chooses to participate is, not in the least in the context of elite sports, highly restricted by social, political and ideological circumstances. Moreover, classification is a sport specific process and of major importance in all sports. Handicaps are artificially constructed and defined. Being a woman is seen as a sport specific 'handicap', otherwise they would be performing together with men. Being small and light is a handicap in boxing and wrestling compared to bigger and heavier athletes. Participation is not based upon an ideology of 'inclusion' and 'sameness', but based upon differences in talent, classified on the basis of relevant inequalities.

There is a clear friction between Pistorius' qualification as 'super-abled' and his vital goals that are based upon an alternative understanding of normality and ability. Most of the empirical studies on this subject support this label of 'super-ability'. Much of the academic debate did not so much deal with his *vital goals*, but rather with the empirical question how his achievements have been influenced by his artificial legs, therefore not centering on whether Pistorius should be classified as a disabled sportsman, but on whether he should be disqualified as having an unfair advantage. Based on a study by the Institute of Biomechanics and Orthopaedics (German Sport University, Cologne), the IAAF concluded that an athlete running with prosthetic blades has a clear mechanical advantage (more than 30%) over someone not using blades. Pistorius responded to this challenge that his prosthetics also confront him with disadvantages, such as the fact that he uses more energy at the start of the race than other runners. Recent findings suggest that running on lower-limb sprinting prostheses is physiologically similar to intact-limb elite running (measured in mean gross metabolic cost of transport), but mechanically different (longer foot-ground contact, shorter aerial and swing times and lower stance-averaged vertical forces) [11,17].

Even if there is evidence that running with prosthetics needs less additional energy than running with natural limbs, this in itself would be an insufficient argument to keep Pistorius from competing in the Olympics. There is no standard test available to judge different bionic legs and compare them with 'normal' legs' [18]. Besides, 'if there is any reason to believe that Pistorius's prostheses afford him some degree of unfair advantage [...] then surely there has been a similar, nay greater, risk of unfair advantage in all of his paralympic competing up to the present' [16]. Categories within disability sports are much fuzzier and more variation in the

quality of technology (such as prosthetic limbs) is accepted within disability sports, which provides unfair advantages for some of the athletes. But these unfair advantages within the Paralympic Games do not seem to be such a high concern by the International Athletic Federation.

The ideology mirrored by the ICF conflicts with the discussion on classification within disability sports, with respect to diverging perspectives on the meaning of obstacles. Although the ICF aims at the removal of obstacles (to minimise any disability), and Nordenfelt adds to that the *will to overcome obstacles*, sport is however defined by a voluntary attempt to overcome *unnecessary obstacles* [27]. Sport is about creating 'artificial dis-abilities', not about taking them away.

Prostheses not necessarily define Pistorius as 'disabled'. On the basis of a definition of his abilities there is no good argument to exclude Pistorius from the Olympic Games. Prostheses are however part of the definition of the game. The question if Pistorius should be labelled as either super- or dis-abled is not that relevant for his in- or exclusion. More relevant is the question what kind of a game is he playing. The question how to define a game deals with criteria for the relevant athletic performance. The standards of excellence for each specific sport are based upon judgements that are informed by scientific, conceptual and ethical evidence [15]. The questions for example if 'klapskates' could officially become part of the game of long track speed skating, if Fosbury's masterful redefinition of high jumping was within the rules of the game are conceptual matters of definition and sport ethical analysis (grounded in notions of fairness and safety) [28]. If re-skilling a technique is necessary as a result of such redefinitions, than accessibility of new technology is crucial. The athletic edge that is gained should always be attributed to someone's own athletic skills, and not on the basis of an unequal distribution of means and superior technology.

In dealing with such issues of fairness and definition in sport, the process of decision making also remains crucial. Who is eligible to make informed decisions about the rules and definition of the game and on what grounds? These informed decisions can be made by a broad practice community that have an interest in the quality of the game itself (such as athletes, coaches, officials, scientists), that are highly knowledgeable on the sport, but without apparent (commercial or athletic) interest in a certain outcome of the decision process. Manufacturers (and sponsors) of high-tech swimming suits eventually harmed the game of swimming when they had too much control on the rules. This was more or less corrected by the community of swimming itself. Similarly, it is clear that manufacturers of prostheses



should not be involved in defining the rules of disability sports, unless they are clearly involved in organising an equal distribution of technological means for each specific category of disability.

Disability sports are about showing performances within categories of similar disabilities, without making those disabilities the central element of athletic prowess. Running on prostheses may be defined as crucial for the specific talent that is tested in a competition against 'relevant others': athletes who have the ability to show a similar talent. The advantages of a prosthesis in this case bear upon the 'relevant inequalities' of the sport. Pistorius is not playing the same game as his opponents because he is showing another and extra skill, namely handling his prosthesis in an extremely talented way.

At first sight it seems that the inclusion of Pistorius in the Olympic Games is in accordance with the ideology behind the ICF and in accordance with the realization of his *vital goals* [5]. It could be argued that the case of Pistorius blurs the distinction between elite sports and the disabled sports. His 'promotion' to the elite level of sport may be considered as a form of empowerment and a symbol for non-discrimination. On the other hand, one can foresee a new boundary between disabled people into two categories: first the invalid, dependent and incapacitated and second 'that much celebrated media persona of the disabled person who has 'overcome adversity' in a heartwarming manner and not been restricted by his or her 'flaws', but believes that 'everything is possible' for those who work hard' [16]. Of the limited available 'scripts of disability' [7], the 'inspirational overcomer' dominates the image of the heroic disabled athlete. The blind runner Marla Runyan received much less attention for the five gold medals that she won in the Paralympics of 1992 and 1996, but really became famous when she competed in the 'normal Olympics' in 2000, and finished 8th in the 1500 m. This difference in status confirms the idea that 'overcoming a disability' seems a more outstanding performance than winning gold in the Paralympic Games. But when a disability can be compensated in such a way that the compensation provides for a 'super'-ability in a specific context, compensating for a disability may prove to be a step beyond 'normal' humanity or even a step towards 'transgressing' humanity.

The case of Pistorius (and more will follow) stimulates the ideology of transhumanism, and the *transhumanization of ableism*: 'the set of beliefs, processes and practices that perceive the "improvement" of human body abilities beyond typical *Homo sapiens* boundaries as essential' [19]. What is perceived of as 'better', as 'enhancement' and what not, however, is up for dispute. If there is no neutral ground on which to define normalcy and 'super'-ability, any attempt at

'going beyond' normal functioning necessarily is politics disguised as science. Transhumanism therefore is an ideological project. It is the paradox of Oscar Pistorius that he could develop into a symbol for the 'normalization of dis-abilities', but at the same time into a symbol of a neo-liberal ideology in which specific talents of the individual 'superhuman' and 'inspirational overcomer' [7] are put on the stage as an heroic example. Pistorius may become a symbol for both a concept of equality through a justice of social inclusion and for a concept of inequality through enhancement towards a form of 'super'-humanism.

## Conclusion

On the one hand, society invests quite willingly in the super-abilities of the elite athlete whilst on the other it only does this reluctantly, and from an ethics of inclusion, with respect to the disabled. In the case of disabilities, one wants to eradicate abnormalities by equalising on the basis of 'sameness', while in the case of super-abilities we support abnormalities. This 'selective investment in the abnormal' and the admiration for the 'genetically superior' could be seen as a token of a society that cannot meet up with the criteria for justice [10]. On the other hand, sport is a competitive practice, whose internal logic consists of the display of an unequal distribution of abilities and talents.

There are good arguments for a radical change of the organisation and classification of traditional sports and for the need of a critical rethinking of the traditional boundary between Olympic Games and Paralympic Games. A more successful application of the notion 'distributive justice' would call for a change of the organisation and classification of traditional sports. Starting from a more liberal definition of categories one can also imagine the organisation of competitions that are not contrasted on the basis of an opposition between able and dis-able, but rather around the equal distribution and accessibility of new technology (including prostheses).

The claim that Pistorius has the right to compete directly against non-disabled athletes in Olympic events does not appear to be a strong claim. A stronger claim can be made for a separate bionic track event to be part of the Olympics. This however needs consistent rules on technical aids as well as an equal and standardised access to new technology. The inclusion of just one ('Paralympic') event will also create new inequalities and asymmetries between performances of able and dis-abled athletes. Pistorius' wish to become part of 'normal' elite sport may be framed as a way of 'inclusion' or 'integration', but paradoxically underlines the differences

and reproduces the current order and hierarchy between able and disabled bodies.

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